

WHAT IS CLAIMED IS:

1. A method for classifying a querying node
5 comprising:

receiving a query message from the node;

reviewing the query message;

classifying the node as a first node type if the message
is a first message type and the node is either unclassified or
10 classified as a second node type; and

classifying the node as the second node type if the message
is a second message type and the node is unclassified.

2. The method of claim 1, wherein the first node type is
15 an IP multicast router.

3. The method of claim 2, wherein the second node type
is an IP multicast querier.

4. The method of claim 1, wherein the first message type
20 is multicast routing protocol query.

5. The method of claim 4, wherein the second message type
is multicast group query.

6. The method of claim 1 further comprising declassifying
the node if the node is classified as the second node type and
a predetermined amount of time elapses without receiving from
the node a message of the second message type.

7. The method of claim 1 further comprising reclassifying
the node as the second node type if the node is classified as
the first node type and a predetermined amount of time elapses

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without receiving from the node a message of the first node type.

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8. The method of claim 1 further comprising transmitting report messages to the node.

9. The method of claim 1 further comprising transmitting
10 multicast routing protocol data packets to the node if the node is classified as the first node.

10. A data communication network comprising:
a plurality of classified nodes; and
15 a classifying node having a plurality of ports and one or more databases;

wherein the databases have entries associating ones of the classified nodes with respective one of the plurality of ports on which respective ones of messages from the respective ones
20 of the classified nodes were received by the classifying node, and

wherein the classified nodes include at least one node classified by the classifying node as a multicast querier.

25 11. The network of claim 10, wherein the classifying node is a multicast router.

12. The network of claim 10, wherein the messages received include IP multicast group membership queries.

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13. The network of claim 10, wherein the classifying node transmits multicast group membership report messages to the classified nodes via ports associated with the classified nodes.

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of time elapses without receiving from the node a message of the second message type.

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21. The router of claim 15 further characterized in that the classification engine reclassifies the node as the second node type if the node is classified as the first node type and a predetermined amount of time elapses without receiving from the node a message message of the first message type.

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22. The router of claim 15, wherein the port further transmits report messages to the node.

23. The router of claim 15, wherein the port further transmits data packets to the node if the node is classified as the first node type.

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